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EXAMINER

FAROKHROOZ, FATIMA N

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,892	Applicant(s) FOURNIER, JOEL	
	Examiner FATIMA N. FAROKHROOZ	Art Unit 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The Amendment, filed on 06/20/08, has been entered and acknowledged by the Examiner.

Claims 1-22 are pending in the instant application.

Claim Objections

Claims 19 and 21 are objected to because of the following informalities:

The term "further" in claims 19 and 21 are objected to because first layer and second layer are already claimed in claim 18 that they are dependant on.

Appropriate correction is required. For purposes of art rejection it is deemed that the term "further" is not included in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9 -12, 14-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Minoru (JP 11040361; Already cited by the Applicant; see Machine Translation).

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Regarding claim 9, Minoru teaches a display device (Drawing 3) comprising: luminescent material (23a and 23b ;[0020] and also see Explanation of Letters and Numerals in the machine translation) wherein the luminescent material comprises: a first layer comprising first luminescent material (23b) and a second layer comprising second luminescent material (23a) ; wherein the second luminescent material 23a may be controlled to be illuminated to mask a space in the first luminescent material 23b (see Drawing 3 wherein for example 23b occupies a small region and the region outside of 23b is therefore masked by 23a); and ; electrodes (for example 28f, 25a,25b, 28e) configured to control illumination of the luminescent material such that the luminescent material can be controlled to display information; wherein all of a display background can be controlled to be illuminated by luminescent material (since materials 23a and 23b together provide illumination for all of the display background).

Regarding claim 10, Minoru teaches a display device (Drawing 3), wherein the luminescent material of the first layer and the luminescent material of the second layer are separately controllable (using electrodes;28e and 28f for controlling luminescent material 23a and electrodes 25a and 25b for controlling luminescent material 23b;[0020]).

Regarding claim 11, Examiner note: the later portion of this claim relates to a process. The device not the process is considered germane to the claim, thus, examination will depend only on the structural limitation of **the luminescent material**.

Regarding claim 12, Minoru teaches a display device (Drawing 3), wherein the electrodes comprise a first electrode (25a) associated with control of a section of luminescent material of the first layer (23b); a second electrode (25b) associated with control of the section of luminescent material of the first layer (23b); and a third electrode (28f) associated with control of a section of luminescent material of the second layer (23a;see [0020]).

Regarding claim 14, Minoru teaches a display device (Drawing 3), wherein the second electrode (25b) is located in front of the first layer (23b) and the second layer (23a) the first electrode (25a) is located behind the first layer (23b); and the third electrode (28f) is located behind the second layer (23a).

Regarding claim 15, Minoru teaches a display device (Drawing 3), wherein the third electrode (28f) overlaps the first electrode (25a).

Regarding claim 16, Minoru teaches a display device (Drawing 3), wherein the first layer has a first set of areas (23b) that can be controlled to be illuminated, the second layer has a second set of areas (23a) that can be controlled to be illuminated.

Regarding claim 17, Minoru teaches a display device (Drawing 3), wherein the luminescent material can be controlled such that no areas are visible between portions of the luminescent material controllable to display information.

Regarding claim 18; Minoru teaches a display device (Drawing 3) comprising: luminescent material (23a and 23b ;[0020] and also see Explanation of Letters and Numerals in the machine translation) wherein the luminescent material comprises: a first layer comprising first luminescent material (23b) and a second layer comprising second luminescent material (23a) ; wherein the second luminescent material 23a may be controlled to be illuminated to mask a space in the first luminescent material 23b (see Drawing 3 wherein for example 23b occupies a small region and the region outside of 23b is therefore masked by 23a); and ; electrodes (for example 28f, 25a,25b, 28e) configured to control illumination of the luminescent material such that the luminescent material can be controlled to display information; wherein the luminescent material can be controlled such that no areas are visible between portions of the luminescent material controllable to display information.

Regarding claim 19, Minoru teaches a display device (Drawing 3), further comprising a first layer having first luminescent material (23b) and a second layer having second luminescent material (23a), wherein the first luminescent material may be controlled to be illuminated to display information (using electrodes 25a and 25b).

Regarding claim 20, Minoru inherently teaches a display device (Drawing 3), wherein all of a display background can be controlled to be illuminated by luminescent material (23a and 23b by using the electrodes 28e;28f and 25a;25b).

Regarding claim 21, Minoru teaches a display device (Drawing 3), further comprising, a first layer (23b) having a first electrode (25b), a second layer , behind the first layer, having luminescent material (23a), a third layer , behind the second layer , having a second electrode (28f), a fourth layer, behind the third layer, having luminescent material (23c), and a fifth layer behind the fourth layer, having a third electrode (28e).

Regarding Claim 22, Minoru teaches a display device (Drawing 3) for use in an automobile, comprising: a first electroluminescent active element (23b) located in a first plane and a second electroluminescent active element (23a) located in a second plane different than the first plane ; wherein the second electroluminescent active element masks a space (region of 23b where there is no illumination by 23b) in the first electroluminescent active element (23a) (also see [0001] for the application of the device).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minoru (JP 11040361; Already cited by the Applicant; see Machine Translation) as applied to claims 9-12 and 14-22; and further in view of Mitsumori (US 4777402).

Regarding Claim 13, Minoru teaches the invention set forth above (see rejection in Claim 12 above). Minoru is silent regarding a display device, wherein the first electrode is also associated with control of the section of luminescent material of the second layer.

In the same field of endeavor, Mitsumori teaches an organic display device (Prior Art Fig.3) wherein the first electrode (6) is also associated with control of the section of luminescent material (4) of the second layer and the control of the section of luminescent material (4) of the first layer (8) in order to achieve multicolor display (see col.1, lines 30-49).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the electrode, as disclosed by Mitsumori in the organic display device of Minoru in order to achieve multicolor display.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsumori (US 4777402) in view of Tanabe et al (US 6252356).

Regarding claim 1, Mitsumori teaches a display device of the thin-film electroluminescent display type (see at least Prior Art Fig.3), comprising: a first layer 4

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having an electroluminescent material, a second layer forming a transparent front electrode 2 (transparent conductive film 2 to which electrical supply is connected; col.1,lines 34-36) a third layer having at least one first rear electrode 6 , the first layer being between the second layer and the third layer ; a fourth layer behind the third layer and having an electroluminescent material 8; and a fifth layer with at least one second rear electrode 10 (see col.1,lines 30-50) .

Mitsumori does not teach a fifth layer with at least one second rear electrode masking an area which is not covered by the first rear electrode.

In the same field of endeavor, the added Tanabe reference teaches a second rear electrode 26A (Fig.7) masking an area which is not covered by the first rear electrode 28A (col.6, lines 12-50).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the display device, as disclosed by Tanabe, in the device of Mitsumori in order to display multiple patterns.

Regarding claim 2, Tanabe teaches a display device (Fig.7) ;wherein the second rear electrode 26A overlaps an edge of the first rear electrode 28A (see the portion wherein the electrodes 26A and 28A overlap). Also see rejection in claim 1 above. The same reason to combine art as in claim 1 applies.

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Regarding claim 3, Tanabe teaches a display device (Fig.7), wherein the first rear electrode 28A covers a surface corresponding to a display background and has at least one hollow area (hollow area is considered as the areas wherein 28A is not present), the second rear electrode (26A) masking at least part of the hollow area. Also see rejection in claim 1 above. The same reason to combine art as in claim 1 applies.

Regarding claim 4, Tanabe teaches a display device (Fig.7), wherein the first rear electrode 28A has several hollow areas (hollow area is considered as the areas wherein 28A is not present; see hollow areas wherein 28A is not present in several regions in Fig.7), and the fifth layer has second rear electrodes 26A shaped so as to mask the hollow areas such that the first and second rear electrodes together mask all of the display background. Also see rejection in claim 1 above. The same reason to combine art as in claim 1 applies.

Regarding claim 5, Tanabe teaches a display device, wherein the first and second rear electrodes may be activated so as to display no information (See col.5,lines 52 to col.6,lines 30, wherein the second electrodes may be activated so as to display no information) (Also see rejection in claim 1 above. The same reason to combine art as in claim 1 applies);

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Regarding claim 6, Mitsumori teaches a display device, wherein the electroluminescent layers are formed from an electroluminescent ink (col.3, lines 58 to col.4, lines 5, wherein the EL film is formed of manganese-doped zinc sulfide).

Regarding claim 7, Examiner note: the later portion of this claim relates to a process. The device not the process is considered germane to the claim, thus , examination will depend only on the structural limitation of **the electrodes**.

Regarding claim 8, Tanabe teaches a display device (Fig.7), wherein the electroluminescent material of the first layer (22A and 22B) and the fourth layer (19A and 19B) can be controlled such that no areas are visible between portions of the electroluminescent material controllable to display information (see col.8, col.2 and 3) in order to achieve multiple patterns or displays (see col.3, lines 37-67, also see col.5, lines 52 to col.6, lines 32).

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 5416494 teaches segmented electrodes with hollow areas between them.

Response to Arguments

The arguments filed on 06/20/08 is acknowledged. On pages 7-10 of the Remarks; the Applicant argues for claims 1-8 that the “**transparent** front electrode” is not disclosed by Mitsumori and Tanabe. The argument is moot in view of grounds of new rejection using the same prior art and the same embodiment of Fig.3 of Mitsumori ; wherein for the same Prior Art disclosure of Fig.3 in Mitsumori, Mitsumori teaches all the limitations of claim 1, including a transparent front electrode which is also already taught by Mitsumori when the device is viewed from bottom to the top (instead of from top to the bottom); such that the **conductive film 2** is Fig.1 is considered to be the **front electrode** (see rejection in claim 1 above); Therefore Mitsumori teaches the transparent front electrode 2 as disclosed in col.1, lines 34-36 of its disclosure.

Regarding the arguments on pages 11 and 12 wherein the Applicant argues regarding claims 9-22 that Tanabe does not disclose a first electroluminescent active element with a "space" that is masked by a second electroluminescent active element; (see paragraph 1 on page 12 of the Remarks) and wherein the Applicant argues on paragraph 3 of page 12 of the Remarks that;” for example; as shown in Fig.7; the arrangement of element 22 is continuous without a gap or space.

Thus, it is not possible for element 19 to mask a space in element 22 as required by independent Claims 9, 18 and 22”; the arguments are moot in view of the new grounds of rejection for the amended claims ;9,18 and 22; with the prior art Minoru that has been cited by the Applicant. For Example; Minoru teaches a first electroluminescent active element “23b” in Drawing 3 of Minoru with a "space" that is masked by a second

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electroluminescent active element 23c (see Explanation of Letters and Numerals in the machine translation).

Therefore, the independent claims and the claims that are dependent on them are not in condition for allowance.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fatima Farokhrooz whose telephone number is (571)-272-6043. The examiner can normally be reached on Monday- Friday, 9 am - 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on (571) 272-2303. The fax phone number

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for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fatima N Farokhrooz/
Examiner, Art Unit 2889

/Toan Ton/
Supervisory Patent Examiner, Art Unit 2889